Rejection Under 35 U.S.C. § 102(b)

The rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ojima et al. (U.S. 4,581,452) is respectfully traversed.

The Examiner's Position

The Examiner takes the position that Applicants' arguments set forth August 14, 2007 have been considered but are not found persuasive. Specifically, the Examiner states that Applicants' argument that Ojima et al. literally disclose pentafluoroethyl and alpha-pentafluoroethyl acrylic acid, but do not disclose the preparation methods or physical properties of the compounds is unpersuasive. The Examiner states that Applicants' claims are directed to a compound represented by the general formula (I), and not to preparation methods or physical properties of the compound. The Examiner states that the cited reference clearly discloses the alpha-pentafluoroalkylacrylic acid, and thus the reference anticipates Applicants' claims. Further, the Examiner states that although the reference does not show the preparation of alpha-pentafluoroethyl acrylic acid, the reference does show the preparation of alpha-pentaflоromethyl acrylic acidic and alpha-pentafluoropropylacrylic acid, which are adjacent homologs of Applicants' compound.

Discussion of MPEP § 2121.02

Applicants respectfully disagree with the Examiner's position. MPEP 2121.02 states that where a process for making a compound is not developed until after the date of invention, **the mere naming of a compound in a reference, without more, cannot constitute a description of the compound**. *See In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968) (Emphasis added). The MPEP also states that Applicants bear the burden to rebut the presumption that the cited reference is operable for making the compound in question.

As stated in the prior response, although Ojima et al. literally disclose pentafluoroethyl and alpha-pentafluoroethyl acrylic acid, the reference fails to teach or suggest the preparation methods or physical properties of the compounds. The reference

discloses the respective physical properties and preparation methods of perfluoromethyl and perfluoropropyl, but not those of pentafluoroethyl. In other words, alpha-pentafluoroethyl acrylic acid and its esters were unknown compounds even after the publication of U.S. 4,581,452.

Thus, this situation falls under MPEP 2121.02 for the following reasons. First, the cited reference fails to teach or suggest the preparation methods or physical properties of Applicants' claimed compounds. Second, the physical properties and preparation methods of alpha-pentafluoroethyl acrylic acid and its esters were known for the first time only after Applicants' present invention. See page 1, line 14 to page 2, line 14 of Applicants' specification. In accordance with the MPEP, which indicates that Applicants bear the burden in this situation, evidence to support these assertions are provided below.

Evidence that alpha-pentafluoroethyl acrylic acid and esters were unknown prior to Applicants' invention

Enclosed herewith as Attachment A is the CAS registration of alpha-pentafluoroethyl acrylic acid. The CAS search result clearly shows that the CAS registration of alpha-pentafluoroethyl acrylic acid is ***only*** based on the publication of the present application, and there are no prior articles registered in CAS. (Notedly, Ojima et al. is NOT listed as a reference.) Specifically, please see page 1 of Attachment A, which refers to only 1 reference. Further, please see page 3 of Attachment A, which lists Applicants under the bibliographic information, and which lists the US publication of the present application (US 2006-183937), the PCT publication on which the present application is based (WO 2004/085372) and the priority application of the present application (JP 2003-85170) under the patent family information. This search result provides clear evidence supporting the fact that alpha-pentafluoroethyl acrylic acid was not public prior to the publication of the present patent application. Thus, it is clear that alpha-pentafluoroethyl acrylic acid was not publicly known at the time Ojima et al. invented their invention.

Enclosed herewith as Attachment B is the CAS registration of alpha-perfluoropropyl acrylic acid. The CAS search result clearly shows that the CAS

registration of alpha-perfluoropropyl acrylic acid is based on the publication of the Ojima et al. patent, as pointed out by the Examiner. This proves that alpha-perfluoropropyl acrylic acid became public when Ojima et al. invented their invention.

As discussed above, the Ojima et al. patent also discloses alpha-pentafluoroethyl acrylic acid as one example. However, as noted above, CAS did not recognize that alpha-pentafluoroethyl acrylic acid became public at the time of the Ojima et al. patent. On the contrary, CAS did recognize that alpha-perfluoropropyl acrylic acid, of which production method and physical properties were disclosed in the Ojima et al. patent, was to be registered as a publicly known compound.

In view of these facts, it is evident that alpha-pentafluoroethyl acrylic acid had not been publicly known before the publication of Applicants' present patent application. Thus, in accordance with MPEP 2121.02, which states that where a process for making a compound is not developed until after the date of invention, **the mere naming of a compound in a reference, without more, cannot constitute a description of the compound**, it is clear that alph-pentafluoroethyl acrylic acid was not considered part of the public domain until after the publication of Applicants' present patent application. Accordingly, Applicants' presently claimed invention, with regard to alpha-pentafluoroethyl acrylic acid, is novel over the cited prior art.

For these reasons, the invention of claim 1 is clearly patentable over Ojima et al.

Conclusion

Therefore, in view of the foregoing remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Kenji TOKUHISA et al.

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Registration No. 55,965
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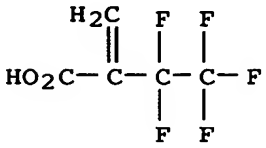
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
December 27, 2007

Answer 1:

Registry Number: 769173-95-7



Formula: C5 H3 F5 O2

CA Index Name: Butanoic acid, 3,3,4,4,4-pentafluoro-2-methylene- (9CI)

-- Resources --

References: ~1

STN Files: CAPLUS, CA, USPATFULL

(Additional Information is available through STN International. Contact your information specialist, a local CAS representative, or the CAS Help Desk for Assistance)

Database: REGISTRY (Copyright (C) 2007 ACS)

Additional Information:
3D Model

ATTACHMENT A

Answer 1:

Bibliographic Information

α-Pentafluoroethylacrylic acid derivatives and their production process. Tokuhisa, Kenji; Mimura, Hideyuki; Kawada, Kosuke; Arai, Shoji. (Tosoh F-Tech Inc., Japan). PCT Int. Appl. (2004), 16 pp. CODEN: PIXXD2 WO 2004085372 A1 20041007 Designated States W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW. Designated States RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, ML, MR, NE, SN, TD, TG. Patent written in Japanese. Application: WO 2004-JP4026 20040324. Priority: JP 2003-85170 20030326. CAN 141:314774 AN 2004:817845 CAPLUS (Copyright (C) 2007 ACS on SciFinder (R))

Patent Family Information

Patent No.	Kind	Date	Application No.	Date
WO 2004085372	A1	20041007	WO 2004-JP4026	20040324
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004292340	A	20041021	JP 2003-85170	20030326
EP 1623969	A1	20060208	EP 2004-723004	20040324
	R: DE, FR, GB			
US 2006183937	A1	20060817	US 2005-550066	20050921

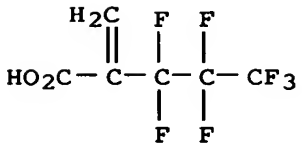
Priority Application		
JP 2003-85170	A	20030326
WO 2004-JP4026	W	20040324

Abstract

Compds. CF3CF2C(:CH2)CO2R [R = H, (un)substituted arom. ring, or C1-20 linear or branched alkyl optionally having a cyclic moiety which may have ≥1 substituent selected among halogeno, hydroxy, C1-10 linear or branched alkoxy optionally having a cyclic moiety, and an (un)substituted arom. ring], useful as intermediates and starting materials for functional polymers, are prepd. Thus, stirring a mixt. contg. 2-bromo-3,3,4,4,4-pentafluorobutene, NEt3, dichlorobis(triphenylphosphine)palladium, KI, water, and THF under 0.7 MPaG CO at 80° gave α-pentafluoroethylacrylic acid.

Answer 1:

Registry Number: 90715-74-5



Formula: C6 H3 F7 O2

CA Index Name: Pentanoic acid, 3,3,4,4,5,5,5-heptafluoro-2-methylene- (9CI)

-- Resources --

References: ~2

STN Files: CAPLUS, CA, TOXCENTER, USPATFULL

(Additional Information is available through STN International. Contact your information specialist, a local CAS representative, or the CAS Help Desk for Assistance)

Database: REGISTRY (Copyright (C) 2007 ACS)

Additional Information:
3D Model

ATTACHMENT B

Answer 1:

Bibliographic Information

5-(Perfluoroalkyl)dihydrouracils. (Sagami Chemical Research Center, Japan). Jpn. Kokai Tokkyo Koho (1985), 7 pp. CODEN: JKXXAF JP 60019771 A 19850131 Showa. Patent written in Japanese. Application: JP 83-126173 19830713. Priority: . CAN 103:22611 AN 1985:422611 CAPLUS (Copyright (C) 2007 ACS on SciFinder (R))

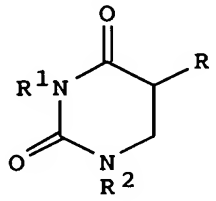
Patent Family Information

Patent No.	Kind	Date	Application No.	Date
JP 60019771	A	19850131	JP 1983-126173	19830713

Priority Application	
JP 1983-126173	19830713

Abstract

5-Perfluoroalkyldihydrouracils I (R = C1-10 perfluoroalkyl; R1, R2 = H, alkyl, aralkyl, aryl; R1 and/or R2 is H), synthetic intermediates of trifluorothymidine derivs., were prepd. by reacting α-perfluoroalkylacrylic acids CH2:CRCO2H (II) with ureas R1NHCONHR2 in the presence of carboxylic acid anhydride (R3CO)2O (R3 = H, alkyl, aryl; two R groups may be bonded to form polymethylene or alkylene group). Thus, II (R = CF3), prepd. from carboxylation of 2-bromo-3,3,3-trifluoropropene, was treated with urea in the presence of Ac2O to give I (R = CF3; R1 = R2 = H) in 67% yield.



I

Answer 2:

Bibliographic Information

5-Perfluoroalkyl-5,6-dihydrouracil derivatives. Ojima, Iwao; Fuchikami, Takamasa; Fujita, Makoto. (Sagami Chemical Research Center, Japan). Eur. Pat. Appl. (1984), 43 pp. CODEN: EPXXDW EP 103436 A2 19840321 Designated States R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. Patent written in English. Application: EP 83-304968 19830826. Priority: JP 82-150075 19820831. CAN 101:23495 AN 1984:423495 CAPLUS (Copyright (C) 2007 ACS on SciFinder (R))

Patent Family Information

Patent No.	Kind	Date	Application No.	Date
EP 103436	A2	19840321	EP 1983-304968	19830826
EP 103436	A3	19850703		
EP 103436	B1	19881117		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE			
JP 59039875	A	19840305	JP 1982-150075	19820831
JP 61048830	B	19861025		
US 4581452	A	19860408	US 1983-526880	19830826

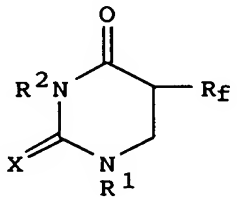
AT	38665	T	19881215	AT 1983-304968	19830826

Priority Application

JP	1982-150075	A	19820831
EP	1983-304968	A	19830826

Abstract

The title compds. I (R1, R2 = H, alkyl, cycloalkyl, aryl, aralkyl, heterocyclyl, Rf = perfluoroalkyl, X = 0, S), useful as neoplasm inhibitors, were prepd. by cyclocondensation of CH2:CRfCOZ (Z = halo, OH) with R1NHCXNHR2 (when Z = OH at least one of R1, R2 = H) or by cyclization of R1NHCXNR2CH2CHRfCO2H. Thus, CH2:C(CF3)CO2H and PhNHCSNH2 were heated 8 h at 90° in DMF, the mixt. cooled to 0°, dicyclohexylcarbodiimide in DMF added, and the whole stirred 1 h to give 50% I (R1 = Ph, R2 = H, Rf = CF3, X = S). I (R1 = H, R2 = Me, Rf = CF3, X = 0) inhibited mouse ascitic mastocarcinoma MM2 at a dosage of 50 mg/kg administered continuously over 1-5 days with an apothanasia rate increase of 33-52%, thus effecting a complete cure.



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